

REMARKS

The Office Action of June 15, 2007 was received and carefully reviewed. Reconsideration and withdrawal of the currently pending rejections are requested for the reasons advanced in detail below.

Claims 1, 77-84, 87-90, 93-103, 105, 106 and 108-153 were pending in this application prior to the final office action. By this amendment, claims 1, 77-80 and 122-125 are amended. Thus, claims 1, 77-84, 87-90, 93-103, 105, 106 and 108-153 are now pending with claims 1, 77-80 and 122-125 being independent. In view of the above amendments and the following remarks, Applicants respectfully request reconsideration and allowance of the application.

In the Office Action, claims 1, 77-84, 87-90, 93-103, 105, 106 and 108-153 stand rejected under 35 U.S.C. § 112, first paragraph. The Examiner asserts that the feature of “*the first film and the second film comprises an inert element*” as recited in pending claims 1, 77-80 and 122-125 is not supported by the original specification. However, Applicants have amended claims 1, 77-80 and 122-125 to recite, among other things, the feature of “the first film and the second film are formed by sputtering using an inert gas as a sputtering gas” in order to clarify the claimed invention. This amended feature is supported, for example, by page 27, lines 17-20 of the specification. Therefore, Applicants respectfully request that the 112 rejection be withdrawn.

It should be noted that in making the above discussed amendment, Applicants do not contradict the statements made in the previous Office Action response of April 9, 2007, in which it was argued that the inert element should be comprised in the film formed by sputtering using an inert gas as a sputtering gas.

Further, claims 1, 77, 79-81, 83, 84, 87, 89, 90, 93, 95-98, 100-103, 106, 108-111, 113-116 and 122-149 stand rejected under 35 U.S.C. § 103(a) as being obvious over Yamazaki et al. (JP 11-154714 and the Derwent Translation of this document – hereafter Yamazaki), Ho et al. (U.S. Patent No. 4,680,854 – hereafter Ho) and Tsutsumi (U.S. Patent No. 5,844,274 – hereafter Tsutsumi); claims 117, 118, 120, 121 and 150-153 stand rejected under 35 U.S.C. § 103(a) as being obvious over Yamazaki, Ho and Tsutsumi, as applied to 10753732.1

claim 1 above, and further in view of Akbar (U.S. Patent No. 5,656,845 – hereafter Akbar); claims 78, 82, 88, 94, 99, 105 and 112 stand rejected under 35 U.S.C. § 103(a) as being obvious over Yamazaki, Ho and Tsutsumi, as applied to claim 1 above, and further in view of Koyama (U.S. Patent No. 5,793,344 – hereafter Koyama); and claim 119 stands rejected under 35 U.S.C. § 103(a) as being obvious over Yamazaki, Ho, Tsutsumi and Koyama, as applied to claim 78 above, and further in view of Akbar. These rejections are respectfully traversed at least for the reasons provided below.

With respect to independent claims 1, 77-80 and 122-125, the Examiner asserts that Yamazaki, Ho, Tsutsumi and/or Koyama, taken alone or in combination, make obvious all features of claims 1, 77-80 and 122-125. However, Applicants have amended claims 1, 77-80 and 122-125 to recite, *inter alia*, the feature of “wherein the first film and the second film are formed by sputtering using an inert gas as a sputtering gas.” Applicants contend that Yamazaki, taken alone or in combination with Ho, Tsutsumi and/or Koyama, fails to make obvious the invention, as presently claimed. Further, Applicants contend that it is non-obvious and therefore novel to combine the feature of wherein the first film and the second film are formed by sputtering using an inert gas as a sputtering gas with the other claimed elements. As shown on page 27, lines 17-20 of the specification, when the film comprising tantalum nitride and the film comprising tungsten are formed by sputtering using an inert gas as a sputtering gas, film peeling due to stress can be prevented. According to the above argument and the amendment, it cannot be said that Yamazaki, taken alone or in combination with any of the cited secondary references, makes obvious the feature of wherein the first film and the second film are formed by sputtering using an inert gas as a sputtering gas, as presently claimed.

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. *MPEP* §2142. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, to modify the references or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art must teach all the claim limitations. *MPEP* §2142.

Applicants respectfully point to the final prong of the test, which states the prior art must teach all the claim limitations. At the very least, Yamazaki, Ho, Tsutsumi and/or
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Koyama do not teach all of the claim limitations of independent claims 1, 77-80 and 122-125 for the reasons set forth above.

Akbar does not cure the deficiencies of Yamazaki, Ho, Tsutsumi and/or Koyama mentioned above. Therefore, Applicants respectfully submit that independent claims 1, 77-80 and 122-125 are allowable as discussed previously. Further, any claim that depends from an allowable claim is allowable as well. Thus, Applicants respectfully request that the rejection of the remaining dependent claims likewise be removed.

In view of the foregoing, it is respectfully requested that the rejections of record be reconsidered and withdrawn by the Examiner, that claims 1, 77-84, 87-90, 93-103, 105, 106 and 108-153 be allowed, and that the application be passed to issue. If a conference would expedite prosecution of the instant application, the Examiner is hereby invited to telephone the undersigned to arrange such a conference.

Respectfully submitted,

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